



Bigleaf Router Installation Guide

Essential Setup

Let's get started

When setting up the Bigleaf router, the steps you take depend on how your Internet Service Provider (ISP) hands off IP addresses and whether you provided WAN circuit settings to Bigleaf during the order process. You received **Router Configuration** details in the Order Shipped email from Bigleaf. Refer to this information to help determine your setup path:

- If your ISP uses dynamically assigned IP addresses (DHCP), you will not need to configure WAN ports. Your Router Configuration details show that your WAN ports are using DHCP.
- If your ISP uses static IP addresses and you provided those IP address details when ordering your Bigleaf service, your Router Configuration details specify which of your Bigleaf router WAN ports have already been configured with your ISP's static IP details. No other configuration is needed.
- If your ISP uses static IP addresses and you did not provide those IP address details when ordering your Bigleaf service (those details are not shown in your Router Configuration details), you'll need to configure the WAN ports to use those static IP addresses. You'll add IP address information in Bigleaf Cloud Connect and on the routers as well.

We're here to help

If you have any trouble connecting or you think there may be a problem with your Bigleaf service, please call us so we can help you immediately.

Tech Support: (888) 244-3133

General questions, helpful information, and Chat Support: [Bigleaf Help Center](#)

Email: Support@bigleaf.net

Step 1 – Prepare for setup

Have the router configuration information available

You received Router Configuration details in the Order Shipped email from Bigleaf. This includes information needed for setting up your Bigleaf router. Have this information close by when connecting your router.

Gather network cables

You need one network cable for each Internet Service Provider (ISP) modem/router, plus one additional cable. For instance, if you have 2 ISP modems or routers, and a firewall, switch, or access point, you will need at least 3 network cables.

Plan your power source

The Bigleaf router should be connected to an Uninterruptible Power Supply (UPS).

Verify access to your firewall

Verify that you have access to edit your firewall configuration. You will update firewall settings with your new Bigleaf IP addresses after the Bigleaf router is connected. If you're unsure how to access your firewall settings, refer to the user guide provided with the device, or contact your network administrator.

Step 2 - Consider IP-related changes

DNS Records

Do you have DNS records pointing at your existing ISP IP addresses? If so, you will need to update those to your new Bigleaf IP addresses during the router install.

To-Do:

A day or two before the install, lower the TTL for those records to a small value like 10 minutes (600 seconds) to ensure a quick transition.

Mail Server

Are you hosting a mail server on-site? If so, Bigleaf will need to set up a reverse-DNS PTR record for the server. To set this up, email [Support](#) with:

- The Bigleaf IP address that you will use for your mail server
- The full hostname (FQDN) of the mail server

VPNs

Do you have any VPNs, or other network resources that are statically configured with WAN IP addresses? If so, you will update these after the Bigleaf router is connected.

Step 3 – Configure the WAN ports for the Bigleaf router if needed

Important: This step is needed only if you are using static IP addresses and you did not provide your WAN circuit details for your internet connection(s) to Bigleaf during the order process. Routers are shipped using DHCP by default, so the WAN circuit settings need to be updated to use your static IP addresses.

If you're unsure whether the information was sent to Bigleaf, refer to the Router Configuration details included in the Order Shipped email that you received from Bigleaf. If it specifies that at least one of your WAN ports has already been configured with your ISP's circuit details, you can skip this step.

Add WAN circuit information in Bigleaf Cloud Connect

1. Log in to [Cloud Connect](#) with **Super Admin** credentials. If you're not sure who has these credentials at your site, contact Bigleaf Support at (888) 244-3133 or via the [Bigleaf Help Center](#).
2. Select the site for which you want to add a WAN circuit, and then select **Site configuration**.
3. On the Site configuration page, select **Edit**.
4. Scroll down to the **Circuits** settings.
5. Select **Add new** and enter the information for your circuit.
6. When you're finished entering circuit information, select **Save**.

For more details about how to add or edit WAN circuit information, see this [Help Center article](#).

Update the WAN ports on the Bigleaf router

Update the router ports to match the information you entered in Cloud Connect.

1. Connect a laptop into the LAN port of the Bigleaf router. There is a LAN-side only network 198.19.8.0/23 with the IP address 198.19.8.1 assigned to the router LAN bridge. Assign your laptop to use an IP address from this network, with the subnet mask 255.255.252.0.
2. On the laptop, open a web browser and browse to **http://198.19.8.1**
3. Enter **admin** for the username, and **admin** for the password.
4. The Router Configuration page lists ports with their associated IP configuration.
5. Configure the WAN port settings the same as you did in Cloud Connect above.
6. When finished making changes, select **Apply Networking Changes** and then select **Submit**.

Step 4 - Connect the Bigleaf equipment

The Bigleaf router requires connections to your internet circuits and your network. This step shows how to connect a Bigleaf BLR-108 router, and a BLR-112 router with and without an expansion card installed.

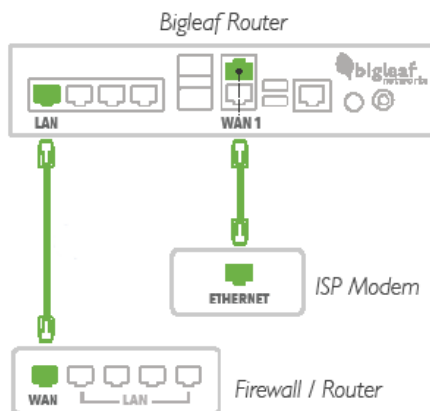
If you're using Bigleaf Wireless Connect, you'll also connect the Teltonika device to your Bigleaf router. This device provides a cellular circuit.

Connecting the Bigleaf router

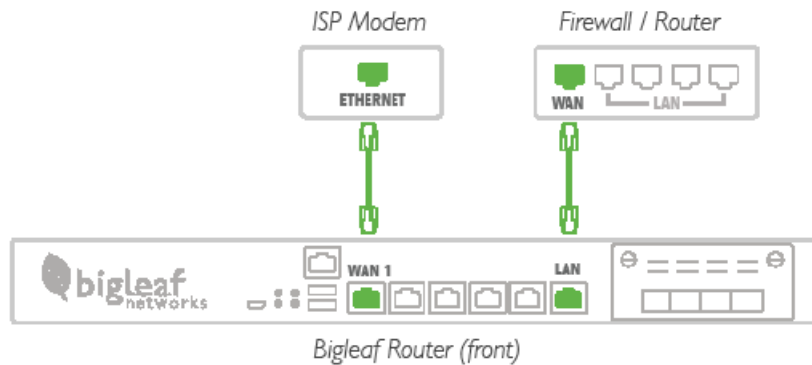
1. Using Ethernet or Fiber cables, plug each ISP circuit into the corresponding Bigleaf router WAN port. This information is provided in the Router Configuration details included in the Order Shipped email that you received from Bigleaf.
2. Connect your access device (access point or firewall) into the Bigleaf router LAN port.

If you have an expansion card on your BLR-112 router, connect the access device to a LAN port on the expansion card.

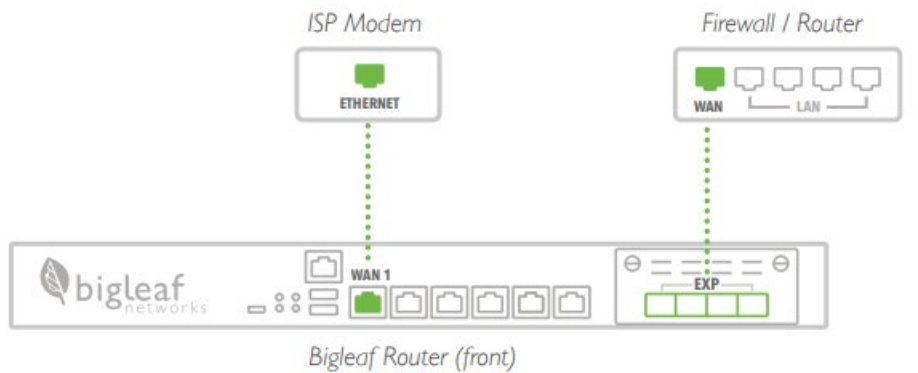
Connection example for the BLR-108 router



Connection example for the BLR-112 router



Connection example for the BLR-112 with an expansion card



3. Connect the Bigleaf power adapter to the router. Then plug the power adapter into a power source.
The router powers on automatically.

Note: The BLR-108 router ships with a [rack mount kit](#) if you want to add the router to a rack.

Connecting the Teltonika device for Wireless Connect

If you're using Wireless Connect, you also received a Teltonika device from Bigleaf with the following accessories:

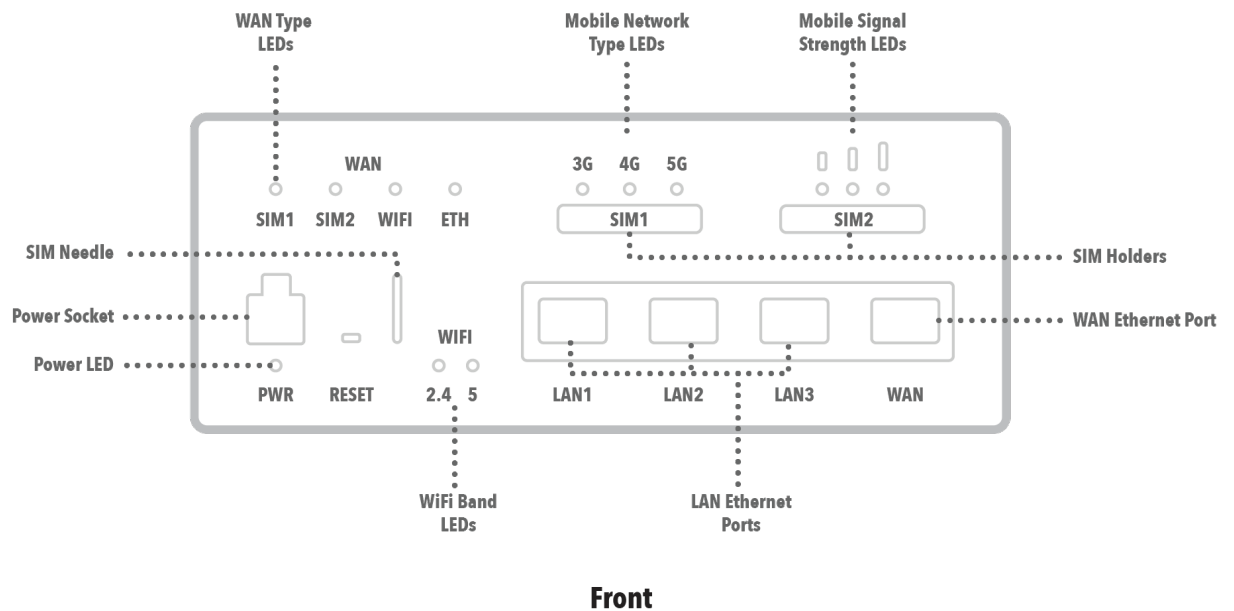
- Power cable and power supply
- Mobile antennas
- Ethernet cable

Follow these steps to connect the Teltonika device to your Bigleaf router to enable the wireless connection.

Note: Because the device uses cellular service, be sure to place it in an area where it can access a cellular signal, such as an elevated location close to window and away from metal structures and thick (concrete) walls.

1. Have the Router Configuration details information close by. This information is part of the Order Shipped email from Bigleaf.
2. Connect the Mobile antennas to the back of the device to the Mobile MAIN and Mobile AUX connectors.
3. Connect the 4-pin connector to the power socket on the front of the device. Then plug the power adapter into a power source (with UPS protection).
4. Connect the Ethernet cable to the LAN 1 port of the Teltonika device, and the other end of the cable to the Bigleaf WAN interface indicated in your Router Configuration details.

Note: This diagram shows the Teltonika RUTM50 device. If you're using the RUTX11 4G LTE device, the steps are the same.



5. Contact [Bingleaf Support](#) after installing the Teltonika device so that we can test available wireless speeds at your location and adjust the circuit speeds settings if needed. For Bingleaf's QoS prioritization, intelligent load-balancing, and seamless failover functions to work properly, the site circuit speeds in Cloud Connect should be set as close as possible to actual wireless speeds available at your location.

Important: If for some reason the Teltonika router is not working or is having issues with configuration, DO NOT factory reset the router. Contact [Bingleaf Support](#) for assistance.

For more details about using Wireless Connect, see [Using Bingleaf Wireless Connect](#).

Step 5 - Configure your Firewall or Router

To connect your network to the Bingleaf service, re-configure your firewall or router with your new Bingleaf IP address information.

1. Log in to your firewall or router interface and navigate to the page where you set the WAN or internet IP address information.
2. Input the information for the internet connection as shown in the Router Configuration details:

IP address
Subnet Mask
Default Gateway/Route
DNS1
DNS2

3. Update any firewall policies, such as firewall or NAT rules, to use the new IP address information.
4. Save and apply the new configuration. You may need to reboot the device.

Test Connection and Make Final Updates

The installation is complete. Open a web browser and browse to some pages, connect to your VPN, test a streaming device to make sure everything is connected and working properly.

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